

**Amendments to the Specification:**

Please amend the title as follows:

"GENE THERAPY FOR SKIN ~~DISEASES~~ DISORDERS USING ~~NEEDLE FREE SYRINGE~~  
NEEDLELESS SYRINGES"

Please amend the paragraph on page 2, line2 through page 4, line 30, beginning, "  
Specifically, the present invention provides the following methods for treating skin..." as  
follows:

- Specifically, the present invention provides the following methods for  
treating skin disorders:
- [1] a method for treating a skin disorder comprising introducing a polynucleotide  
subcutaneously using a needleless syringe;
  - [2] a method for treating a skin disorder comprising injecting/subcutaneously  
introducing a polynucleotide around diseased skin using a needleless syringe;
  - [3] the method of [1] or [2], wherein the polynucleotide is selected from a DNA,  
oligonucleotide, RNA, siRNA, and antisense;
  - [4] the method of any one of [1] to [3], comprising injecting/subcutaneously  
introducing 10 µg to 10 mg of the polynucleotide per dose in portions to  
multiple sites around the diseased skin;
  - [5] the method of any one of [1] to [4], wherein the needleless syringe injects a  
pharmaceutical liquid by using a gas pressure or an elastic force of an elastic  
member to drive a piston;
  - [6] the method of [5], wherein the gas is helium, nitrogen, or air, and the elastic  
member is a spring;
  - [7] the method of any one of [1] to [6], wherein the polynucleotide is hepatocyte  
growth factor (HGF) gene and/or prostacyclin synthetase (PGIS) gene;
  - [8] the method of any one of [1] to [7], wherein the oligonucleotide is an NF-κB  
decoy oligonucleotide comprising the sequence of SEQ ID NO: 1 or 2;

- [9] the method of any one of [1] to [8], wherein the skin disorder is a wound, cutaneous ulcer, or psoriasis;
- [10] the method of any one of [1] to [9], wherein the wound is a post-surgical wound or a wound caused by an injury or accident;
- [11] the method of any one of [1] to [10], wherein the cutaneous ulcer is an intractable cutaneous ulcer;
- [12] the method of any one of [1] to [11], wherein the intractable cutaneous ulcer is a diabetic ulcer, bedsore (pressure ulcer), or ulcer associated with venous or arterial insufficiency;
- [13] a method for treating a wound or cutaneous ulcer, comprising injecting/subcutaneously introducing an HGF gene and/or PGIS gene around diseased skin using a needleless syringe;
- [14] the method of [13], comprising injecting/subcutaneously introducing the HGF gene and PGIS gene around the diseased skin using a needleless syringe;
- [15] a method for treating psoriasis, comprising injecting/subcutaneously introducing an NF- $\kappa$ B decoy oligonucleotide around diseased skin using a needleless syringe;
- [16] an agent for treating, ameliorating, or preventing a skin disorder, comprising a polynucleotide as an active ingredient, wherein the agent is introduced subcutaneously using a needleless syringe;
- [17] an agent for treating, ameliorating, or preventing a skin disorder, comprising a polynucleotide as an active ingredient, wherein the agent is injected/subcutaneously introduced around diseased skin using a needleless syringe;
- [18] the agent of [16] or [17], wherein the polynucleotide is selected from a DNA, oligonucleotide, RNA, siRNA, and antisense;
- [19] the agent of any one of [16] to [18], comprising 10  $\mu$ g to 10 mg of the polynucleotide per dose as an active ingredient, wherein the agent is

injected/subcutaneously introduced in portions to multiple sites around the diseased skin;

[20] the agent of any one of [16] to [19], wherein the needleless syringe injects a pharmaceutical liquid by using a gas pressure or an elastic force of an elastic member to drive a piston;

[21] the agent of [20], wherein the gas is helium, nitrogen, or air, and the elastic member is a spring;

[22] the agent of any one of [16] to [21], wherein the polynucleotide is an HGF gene and/or PGIS gene;

[23] the agent of any one of [16] to [22], wherein the oligonucleotide is an NF- $\kappa$ B decoy oligonucleotide comprising the sequence of SEQ ID NO: 1 or 2;

[24] the agent of any one of [16] to [23], wherein the skin disorder is a wound, cutaneous ulcer, or psoriasis;

[25] the agent of any one of [16] to [24], wherein the wound is a post-surgical wound or a wound caused by an injury or accident;

[26] the agent of any one of [16] to [25], wherein the cutaneous ulcer is an intractable cutaneous ulcer;

[27] the agent of any one of [16] to [26], wherein the intractable cutaneous ulcer is a diabetic ulcer, bedsore (pressure ulcer), or ulcer associated with venous or arterial insufficiency;

[28] an agent for treating, ameliorating, or preventing a wound or cutaneous ulcer, comprising an HGF gene and/or PGIS gene as an active ingredient, wherein the agent is injected/subcutaneously introduced around diseased skin using a needleless syringe;

[29] the agent of [28], comprising an HGF gene and a PGIS gene as active ingredients, wherein the agent is injected/subcutaneously introduced around diseased skin using a needleless syringe;

[30] an agent for treating, ameliorating, or preventing psoriasis, comprising an NF- $\kappa$ B decoy oligonucleotide as an active ingredient, wherein the agent is

injected/subcutaneously introduced around diseased skin using a needleless syringe;

[31] use of a polynucleotide for preparing an agent for treating, ameliorating, or preventing a skin disorder, wherein the agent is introduced subcutaneously using a needleless syringe;

[32] use of a polynucleotide for preparing an agent for treating, ameliorating, or preventing a skin disease, wherein the agent is injected/subcutaneously introduced around diseased skin using a needleless syringe;

[33] the use of [31] or [32], wherein the polynucleotide is any one selected from a DNA, oligonucleotide, RNA, siRNA, and antisense;

[34] the use of any one of [31] to [33], wherein 10  $\mu$ g to 10 mg of the polynucleotide per dose is injected/subcutaneously introduced in portions to multiple sites around the diseased skin;

[35] the use of any one of [31] to [34], wherein the needleless syringe injects the pharmaceutical liquid by using a gas pressure or an elastic force of an elastic member to drive a piston;

[36] the use of [35], wherein the gas is helium, nitrogen, or air, and the elastic member is a spring;

[37] the use of any one of [31] to [36], wherein the polynucleotide is an HGF gene and/or PGIS gene;

[38] the use of any one of [31] to [37], wherein the oligonucleotide is an NF- $\kappa$ B decoy oligonucleotide that comprises the sequence of SEQ ID NO: 1 or 2;

[39] the use of any one of [31] to [38], wherein the skin disorder is a wound, cutaneous ulcer, or psoriasis;

[40] the use of any one of [31] to [39], wherein the wound is a post-surgical wound or a wound caused by an injury or accident;

[41] the use of any one of [31] to [40], wherein the cutaneous ulcer is an intractable cutaneous ulcer;

[42] the use of any one of [31] to [41], wherein the intractable cutaneous ulcer is a diabetic ulcer, bedsore (pressure ulcer), or ulcer associated with venous or arterial insufficiency;

[43] use of an HGF gene and/or PGIS gene for preparing an agent for treating, ameliorating, or preventing a wound or cutaneous ulcer, wherein the agent is injected/subcutaneously introduced around diseased skin using a needleless syringe;

[44] the use of [43] of the HGF gene and PGIS gene for preparing an agent for treating, ameliorating, or preventing a wound or cutaneous ulcer, wherein the agent is injected/subcutaneously introduced around diseased skin using a needleless syringe; and

[45] use of an NF- $\kappa$ B decoy oligonucleotide for preparing an agent for treating, ameliorating, or preventing psoriasis, wherein the agent is injected/subcutaneously introduced around diseased skin using a needleless syringe.--

Please cancel the present "SEQUENCE LISTING", pages 1/2-2/2, and insert therefor the accompanying paper copy of the Sequence Listing, one page, at the end of the application.